

JCC9 Rec'd PCT/PTO 10 JUN 2005

**IN THE UNITED STATES DESIGNATED/ELECTED OFFICE**

International Application No. : PCT/EP2003/012952  
International Filing Date : 19 November 2003 (19.11.2003)  
Priority Date(s) Claimed : 11 December 2002 (11.12.2002)  
Applicant(s) (DO/EO/US) : Matthew FRANCIS, et al.

Title: FAST SWITCHING LIQUID CRYSTAL COMPOSITION FOR USE IN BESTABLE  
LIQUID CRYSTAL DEVICES

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This information disclosure statement is made in accordance with 37 C.F.R. §§ 1.56, 1.97 and 1.98 as follows:

**Timing and Fees**

- ☒ Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing this information disclosure statement is filed:
- ☐ within three months of the filing date of a national application other than a CPA under § 1.53(d);
  - ☒ within three months of the actual filing date of the national phase of a PCT application; OR
  - ☐ before the mailing of a first substantive office action (including after filing of an RCE).
- ☐ Under 37 C.F.R. § 1.97(c), this information disclosure statement is filed after the periods specified in 37 C.F.R. § 1.97(b), but before the mailing date of:
- a final rejection under 37 C.F.R. 1.113;
  - termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR
  - a notice of allowance under 37 C.F.R. § 1.311; and

is accompanied by:

- ☐ the statement as specified in 37 C.F.R. § 1.97(e) set out below; OR
- ☐ a check covering the fee of \$180.00 under 37 C.F.R. § 1.17(p).

☐ Under 37 C.F.R. § 1.97(d), this information disclosure statement is filed after the mailing date of the following actions which have not been withdrawn:

- ☐ a final action under 37 C.F.R. § 1.113;
- ☐ termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2);
- ☐ OR a notice of allowance under 37 C.F.R. § 1.311;

AND is filed on or before payment of the issue fee; AND is accompanied by:

the statement as specified in 37 C.F.R. § 1.97(e) as set forth below, and the fee of \$180.00 under 37 C.F.R. § 1.17(p).

Statements Under 37 C.F.R. 1.97(e)

- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.

Cited Materials

- ☐ Copies of materials listed but not attached were cited in benefit (35 U.S.C. § 120) ancestor application Serial No. \_\_\_\_\_, on Form 892 by the Examiner and/or Form 1449 by the applicant; see 37 C.F.R. § 1.98(d).
- ☒ Copies of materials listed but not attached were cited in an international search report dated March 8, 2004.
- ☐ Not required by 37 CFR § 1.98.
- ☐ Copies of the materials listed are attached (except for the foregoing).

### Non-English Language References

☒ An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).

☐ A foreign-language search report from a foreign patent office is provided, and pertinent parts are translated substantively below:

X = document of particular relevance when it is taken alone

Y = document of particular relevance when it is combined with another such document

A = document defining the general state of the art

O = non-written disclosure

P = intercalated document

T = document cited to understand the theory or principle underlying the invention

E = patent document which has the benefit of a date earlier than the filing date and which was published only on or after this filing date

D = cited in the application

L = cited for another reason

& = publication of member of same patent family

☐ Translation of other relevant information on foreign search report

### Other Information

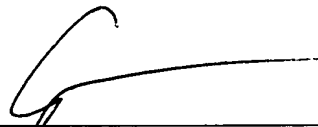
#### Payment of Fees Due (If Any):

☐ A check for \$\_\_\_\_\_ covering the fee identified above is attached.

☐ Please charge to Deposit Account No. 13-3402 \$\_\_\_\_\_ for the fee identified above.

☒ The Commissioner is hereby authorized to charge or credit any overpayment to Deposit Account #13-3402, two copies of this paper are attached for this purpose.

Respectfully submitted,

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Attorney Docket No.: MERCK-3022

Date: June 10, 2005

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PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 1

**Complete if Known**

Application Number	USNP of PCT/EP2003/012952
Filing Date	19 November 2002 (19.11.2002)
First Named Inventor	Matthew FRANCIS, et al.
Group Art Unit	unknown
Examiner Name	unknown
Attorney Docket Number	MERCK-3022

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code <sup>2</sup> (if known)		
	001	6,440,506		KOJIMA, et al.	08-27-2002
	002	5,976,407		TARUMI, et al.	11-02-1999
	003	6,569,503		HIRSCHMANN, et al.	05-27-2003
	004	6,544,602		HIRSCHMANN, et al.	04-08-2003
	005	2003/148043		HIRSCHMANN	08-07-2003
	006	6,514,579		HIRSCHMANN, et al.	02-04-2003
	007	2003/224125		HECKMEIER, et al.	12-04-2003
	008	2003/113482		NAKAMIMA, et al.	06-19-2003
	009	2003/127629		HIRSCHMANN, et al.	07-10-2003
	010	2003/104143		SUERMAN	06-05-2003

**FOREIGN PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	011	GB	2 358 870		MERCK PATENT GMBH	08-08-2001		002
	012	DE	100 20 059		MERCK PATENT GMBH	01-11-2001		003
	013	DE	100 20 061		MERCK PATENT GMBH	11-07-2000		004
	014	DE	100 56 323		MERCK PATENT GMBH	06-21-2001		005
	015	DE	100 27 066		MERCK PATENT GMBH	01-11-2001		006
	016	DE	101 12 954		MERCK PATENT GMBH	12-13-2001		007
	017	DE	100 18 598		MERCK PATENT GMBH	11-02-2000		008
	018	WO	01 64814		MERCK PATENT GMBH	09-07-2001		
	019	DE	102 29 505		MERCK PATENT GMBH	02-13-2003		009
	020	DE	102 23 912		MERCK PATENT GMBH	01-16-2003		010
	021	WO	99 34251		SECRY OF STATE OF DEFENSE	07-08-1999		

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. Number refers to English language corresponding family member.

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